Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

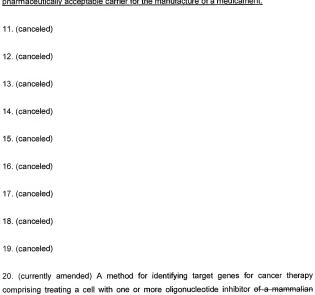
Listing of Claims:

1. (currently amended) An oligonucleotide inhibitor<u>chosen from an antisense oligonucleotide and/or a siRNA molecule</u>, or an analogue thereof, comprising from about 7 to about 100 a_nucleotides sequence_complementary to a mammalian MBD2/demethylase mRNA as set forth in SEQ ID NO:10, wherein said oligonucleotide inhibitor—or analogue thereof, inhibits expression of a mammalian MBD2/demethylase gene.

- 2. (canceled)
- 3. (canceled)
- 4. (canceled)
- 5. (canceled)
- (previously presented) The oligonucleotide inhibitor according to claim 1, wherein said oligonucleotide inhibitor comprises one or more phosphorothioate backbone linkages.
- 7. (previously presented) The oligonucleotide inhibitor according to claim 1, wherein said oligonucleotide inhibitor comprises one or more 2'-O-methyl modified bases.

8. (previously presented) A vector comprising a sequence encoding the oligonucleo	tide
inhibitor according to claim 1.	

- 9. (currently amended) A host cell transformed or transfected with the oligonucleotide according to claim 1 or the vector according to claim 8.
- 10. (currently amended) A pharmaceutical composition comprising the oligonucleotide inhibitor according to claim 1.-or the vector according to claim 8-in association with a pharmaceutically acceptable carrier for the manufacture of a medicament.



MBD2/demethylase gene according to claim 1, analyzing gene expression in the treated cell and comparing the gene expression with gene expression in a control cell not treated with said oligonucleotide inhibitor, wherein a difference in gene expression between the treated cell and the control cell is indicative of one or more target gene.

- 21. (previously presented) The method according to claim 20, wherein analyzing gene expression is conducted by microarray analysis.
- 22. (currently amended) A method for inhibiting expression of a mammalian MBD2/demethylase gene in a mammal comprising administering to said mammal a therapeutically effective amount of an oligonucleotide inhibitor chosen from an antisense oligonucleotide and/or a siRNA molecule, or an analogue thereof, comprising from about 7 to about 100 a nucleotides sequence complementary to a mammalian MBD2/demethylase mRNA as set forth in SEQ ID NO:10, to said mammal, wherein said oligonucleotide inhibitor or analogue thereof inhibits expression of a mammalian MBD2/demethylase gene.

23. (canceled)

- 24. (previously presented) The method according to claim 22, wherein said mammal is a human.
- 25. (currently amended) A method for treating er-preventing-cancer in a mammal comprising administering to said mammal a therapeutically effective amount of an oligonucleotide inhibitor chosen from an antisense oligonucleotide and/or a siRNA molecule, or an analogue thereof, comprising from about 7 to about 100 a nucleotide sequence complementary to a mammalian MBD2/demethylase mRNA as set forth in SEQ ID NO:10, to said mammal, wherein said oligonucleotide inhibitor or analogue thereof-inhibits expression of a mammalian MBD2/demethylase gene.

26. (canceled)

- 27. (currently amended) The method according to claim 25, wherein said oligonucleotide inhibitor, or analogue thereof, inhibits cancer cell growth.
- 28. (currently amended) The method according to claim 25, wherein said oligonucleotide inhibitor, or analogue thereof, inhibits cancer cell proliferation.
- 29. (previously presented) The method according to claim 25, wherein said cancer is lung cancer or colorectal cancer.
- 30. (previously presented) The method according to claim 25, wherein said method is for preventing a familial cancer.
- 31. (previously presented) The method according to claim 25, wherein said mammal is a human.